

The Madras Clinical Journal

Vol. XXIX

February 1963

No. 8

CONTENTS

	Page
1. Intranatal Care — O. Francis ...	189
2. Throw your Cigarette — Professor S. Bekker ...	198
3. Surgery of Senile Cataract in Canada — J. Rajasekaran ...	199
4. Association Notes ...	204
5. Abstracts and Excerpts ...	205
6. Obituary ...	204
7. The 17th Madras State Medical Conference ...	208
8. National Defence Fund—Donations through the Madras State Branch, I. M. A. ...	208
9. Editorial Committee ...	Cover 3
10. Editorial Announcement ...	Cover 4

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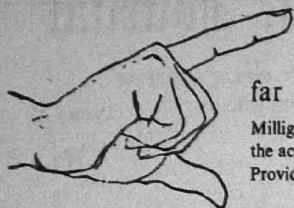
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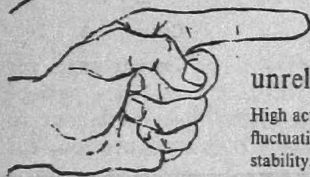
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The Madras Clinical Journal

JOURNAL OF THE MADRAS STATE BRANCH OF THE INDIAN MEDICAL ASSOCIATION
(WITH WHICH IS INCORPORATED THE "MISCELLANY")

Vol. XXIX

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INTRANATAL CARE *

O. FRANCIS, M. D., D. G. O.

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By intranatal care is meant the care of a woman during labour or parturition. In recent years, there has been a tendency to give more importance to antenatal care and exalt it, but it must be borne in mind that antenatal methods are only the strategy and intranatal methods are the tactics of obstetrics and that both are equally important to achieve best results.

The practice of obstetrics differs from that of medicine and surgery, in that firstly it is a matter of two lives, that of the mother and the child and consequently the responsibility imposed upon the obstetrician is much greater than that of a physician or surgeon; secondly it is mostly an emergency practice and the service of the obstetrician may be called upon at any time and he must be always prepared to respond to the call immediately, for any delay may cause the death of the mother and/or child; thirdly correct diagnosis prior

to labour is more important, for mistakes will be known to the patient and her relations soon at labour to the detriment of his reputation, for instance a case diagnosed as a single foetus, if it turns out to be twins or vice versa, or if one diagnosed as vertex turns out to be a malpresentation with its associated complications. So the obstetrician has to be quite prompt in attending to labour cases and extremely careful in their diagnosis and management.

The obstetrician must always keep in mind the various objectives of care, viz. to remove the fear complex of labour, to prevent infection and trauma to the mother and child, to prevent retention of placenta and membranes and postpartum haemorrhage, to prevent exhaustion and shock and to ensure a subsequent satisfactory puerperium.

It is most important to remove the fear complex of labour from a woman in labour and to instil confidence in

* Lecture delivered at the Indian Medical Association, Devakottai, Chettinad Branch, Ramnad District on 10th November, 1962.

her. It is now well recognised that there is an emotional factor as important as its physical counterpart and that a woman's attitude towards confinement has a great influence on the ease of her labour. The very presence of the same obstetrician who has been looking after her during the antenatal period and in whom she has complete confidence is in itself a potent basic analgesic and is worth more than many grams of analgesics. She must be made to feel that she is going to perform a natural function and in a natural way. A primigravida might have heard from her friends or read from books about difficult deliveries. This may fan the spark of a natural timidity in her to a flame of fear, if not dread of what is going to happen to her. So too the multipara who had complications in her previous deliveries. The obstetrician can do a lot towards her emotional well-being. For that he must listen to her sympathetically, gain her confidence, dispel from her all her worries and fears and cheer her up. He has to be her "guide, philosopher and friend". Her confident feeling that he is by her side to spare her all pains compatible with her and her child's safety and that he is competent to tackle any emergency will enable her to greet labour with enthusiasm. She must be told what happens in the first and second stages of labour, the sensations she will experience in these stages and how she must react to them. If she is not told about the normal, she is likely to mistake most of the normal occurrences as abnormal, particularly a primi, and will be much disturbed and under great tension. A tense woman will have a tense cervix and a prolonged and difficult labour. The F. T. P. syndrome (i. e. fear, tension, pain syndrome) is well known.

The morale of a woman in labour is sometimes greatly shattered by careless talks, comments and laughter outside the delivery room which she happens to overhear. In this connection the following words of Oliver Wendell Holmes must be remembered by all while attending to labour cases: "*The woman about to become a mother or with her newborn infant upon her bosom, should be the object of trembling care and sympathy wherever she bears her tender burden or stretches her aching limbs.....God forbid that any member of the profession to which she trusts her life doubly precious at that eventful period should hazard it negligently, unadvisedly or selfishly!*".

It is essential to bestow great care and attention to all details in the preparation of the patient for delivery and in the subsequent management of labour. If the patient's home and surroundings are not found satisfactory or when there are complications such as antepartum haemorrhage or when a difficult operative delivery is anticipated, the obstetrician should have no hesitation to advise the patient and her relations to have her delivery in a maternity institution where all facilities are available. Once the decision is made to have the delivery conducted at home, he must give clear instructions as to what all should be got ready. The labour room must be well chosen. There should not have been any septic or infectious cases there before. It must be well ventilated and away from the road side and with as little furniture and drapery as possible. The labour bed should be narrow and accessible on both sides, not too low, quite clean and with a firm mattress, rubber sheeting and a clean bed sheet over it. It is desirable

to give the patient a soap and water enema, as by this false pains will pass off and true pains will increase in severity and labour will be hastened. But, if she is advanced in labour and the head low down, it is not advisable to give an enema, for not only that it may be difficult to push in the fluid, but when it is given with difficulty, it will be expelled only at the time of actual delivery of the head when it is likely to contaminate the surrounding area and cause sepsis. After the enema, she must be given a bath and then the pubic hair shaved and the parts well cleaned with soap and water.

Before starting the abdominal examination, the obstetrician must reassure her, feel her pulse and cheer her and ask her when the pains started. Then the exact presentation and position should be found by palpation and the condition of the foetus found out by auscultation of the foetal heart. External pelvimetry is of a very limited value for even if the measurements are smaller than normal, if the foetal head is small, it can pass through the pelvis; on the other hand, even if the measurements are normal but the foetal head is larger, it may not pass through the pelvis. So what is more important is whether there is cephalopelvic disproportion. Outlet measurements are more important as inlet disproportion is more obvious. A thorough pelvic examination must be made at the end of the 37th week in all primis and in mults with previous bad obstetric history to assess the pelvic capacity and the possibility of any disproportion at the inlet, cavity or out-let. Where this had not been done, a vaginal examination must be done in these cases early in labour. If this has been done before or if she is a multi with previous labours all

normal with live children, no vaginal examination is necessary early in labour. Subsequently the progress of labour can be found by noting the descent of the head, the anterior shoulder and the area of maximum intensity of the foetal heart. When the head is fully engaged, the occiput will no longer be palpable per abdomen. When the head descends still further down in the pelvis, it can be felt if pressure is applied to the perineum on the side and in front of the anus upwards and inwards with the index and middle fingers after widely separating the legs of the patient. If the head has gone deep into the pelvis and if the uterus is very tense, one may mistake the shoulders for the breech which has engaged; but palpation of the whole uterus will show the breech at the fundus and no head there. Careful palpation of the anterior shoulder will show that it is about 4" to 5" above the symphysis pubis, when the head is above the brim in anterior position close to the middle line and in posterior position about 3" from the middle line; about 2" above symphysis pubis, when the head is fully engaged; and as it reaches the symphysis, the head will be bulging the perineum. From all these the progress of labour can be found, and the condition of the foetus can be ascertained by listening to the foetal heart. So there is no necessity at all for any vaginal examination when labour is progressing satisfactorily. It must be remembered that during a uterine contraction the foetal heart becomes slow, but it must come back to normal after the contraction passes off. The area of maximum intensity of foetal heart gradually descends as the head descends in the pelvis. After the rupture of membranes it must be recorded every

10 to 15 minutes. A foetal heart rate above 160 or below 120 must be considered as a sign of foetal distress, so also if there is escape of frank meconium except in a breech. Slightly meconium stained liquor amnii is not of much significance. After the examination, if everything is normal, the patient must be reassured, but the obstetrician should never commit himself as to the exact time when labour will be over. If any abnormality is found, it is not always wise to inform the patient, but her relatives should be informed about it for his own protection.

Vaginal examination becomes necessary only when the labour is prolonged after the rupture of the membranes or when there is foetal or maternal distress. Also it must be done as soon as the membranes rupture, if the head is found floating or if there is malpresentation like shoulder or breech and in case of pronounced hydramnios to find out any prolapse of the cord. The obstetrician must wash his hands well with soap and water and then dip in dettol or cetavlon, the latter being more effective against staphylococci and resistant organisms like *pseudomonas pyocyanea*, then put on a sterile overall, mask and gloves and then only do the vaginal examination. It must be remembered that wearing the gloves does not lessen the necessity for thoroughly washing the hands, for the gloves may be pricked or torn and virulent staphylococci may be on the hand. Gloves not only prevent any infection reaching the patient, but also protect the obstetrician from getting any infection from the patient such as from a syphilitic sore on the vulva.

Regarding infection, the commonest source is exogenous especially from droplet infection. *Streptococcus*

haemolyticus A is the commonest cause in severe infections. Also staphylococci, especially the aureus variety, particularly the coagulase positive variety which is also found in the nasopharynx may be conveyed to the patient during talking or coughing. These not only cause puerperal sepsis, but also cause skin and other infections in the newborn. The infection can be from the patient herself, either endogenous such as anaerobic streptococci which are normally found in the vagina becoming pathogenic in the presence of devitalised or traumatised tissue or retained portions of the placenta, or auto-genous from some other parts of her body such as *B-coli* from the bladder or rectum. While making the vaginal examination, the labia minora must be separated with two fingers of the left hand, then the introitus vagina swabbed with pledgets of cotton from above downward and then the index and middle fingers of the right hand passed into the vaginal canal without touching the perineum or anus. It must be done in between uterine contractions, for during a contraction the head will appear to be much lower down in the pelvis and the cervix will appear to be more dilated. Sometimes a large caput or undue moulding of the head may give a mistaken idea that the head is low down. In these cases it is important to make sure that the greatest diameter of the head has gone through the brim before forceps is applied. If there is any doubt, intrapartum radiography will be very useful, particularly a lateral view. For fear of infection a vaginal examination should not be postponed even when indicated to a late stage in labour, for by that time the condition might have become worse. While doing a p. v., all informations

regarding the presenting part, its station in pelvis, absence of membranes, caput formation, undue moulding, the dilatation and nature of the cervix and any contraction of the pelvis should all be ascertained. Prophylactic sulpha and antibiotics are not necessary in normal cases, but in a prolonged labour or before interference penicillin injections will be very useful as it rapidly passes into the amniotic fluid and the maternal and foetal circulation.

It is important to recognise whether the patient is in the first or second stage of labour, for in the first stage a *primi* can be left for 1 or 2 hours while a *multi* should not be left if the head is fully engaged, and in the second stage, it is not advisable to leave whether *primi* or *multi*. Further in a normal labour in the first stage the patient must be allowed to walk about in the room or sit in a chair and only when the pains are severe, she must take to bed; she must be told to lie calm and relaxed and not to strain or bear down then, as it will only exhaust her and predispose to genital prolapse. Usually the membranes rupture and the liquor amnii escapes at the end of the first stage with full dilatation of the cervix, but sometimes it may rupture prematurely when the cervix is only partially dilated. Sometimes a high rupture of membranes may occur and liquor amnii may slowly drain off.

Whether the membranes have ruptured or not can be found out by the following tests:

(1) *The P. H. of the vaginal fluid*: In normal vaginal secretions, it is 4.5 to 5.5 while in liquor amnii it is 7 to 7.5.

(2) *The nitrazine test*: A sterile cotton tipped applicator is inserted deep into the vagina and later it is

applied to a nitrazine paper and the colour compared with a colour chart. Yellow, olive yellow and olive green indicate intact membranes, while blue green, blue grey and deep blue show ruptured membranes.

(3) *Microscopic examination*: By finding fat globules or epithelial cells in the vaginal fluid on microscopic examination.

Further, bearing down pains are characteristic of the second stage and in this stage the patient must be encouraged to co-operate with nature and bear down. Cramps in the legs often occur due to the pressure of the head on the pelvic nerves and these can be relieved by a change of position of the legs, passive movements and massage for a short time.

Artificial rupture of the membranes is indicated when due to a tough bag of membranes, or when labour is prolonged even after full dilatation of cervix and also in antepartum haemorrhage to control bleeding. In any operative delivery, if membranes have not already ruptured, it has to be artificially ruptured.

A careful watch must be kept on the bladder, as a distended bladder can cause delay in the first, second and third stage. The patient must be encouraged to pass urine every 3 or 4 hours and if at any time a distended bladder is found and the patient not able to pass urine, she must be catheterised. In late second stage when the head is low in the pelvis, due to its compression of the urethra, catheterisation may be difficult. In these cases the head must be pushed up slightly, one finger passed between the head and the region of the urethra and then a male metal catheter passed and bladder emptied.

The most important part in the management of the second stage is the prevention of lacerations of the perineum. For this, the presenting part must be allowed to stretch the perineum well. In a *primi*, digital stretching of the vaginal orifice and 'ironing' of the pelvic floor may be helpful. The head must be allowed to escape slowly and in a flexed attitude and for this, the palm of the left hand must be placed over the occiput, flexion of the head favoured and occiput prevented from hitching against the symphysis pubis, but too much pressure should not be applied on the head, lest intracranial haemorrhage may occur. The fingers of that hand must help to take the pressure off the posterior commissure, but in this attempt if the head is levered unduly forward, tear of the clitoris may occur which is likely to cause severe bleeding. The actual delivery must be effected in between the pains by pushing the head through the vulvar orifice with the right hand pressing the forehead from behind the anus when the middle of the anterior fontanella reaches the posterior commissure (Ritgen's manoeuvre). Perineal tear may also occur during the delivery of the shoulders. To prevent this, delivery of the shoulders should be delayed till they have undergone internal rotation, which may have to be sometimes aided. The head should be then held between the two hands and downward traction made till the anterior shoulder appears under the pubic arch, then by an upward movement the posterior shoulder should be delivered after which the anterior shoulder delivered.

As regards episiotomy, in a normal delivery it is not necessary except in a *primi* with an unusually tight vulvar orifice or a large head, but it

is definitely indicated in a *primi* with a breech or face to pubis delivery or where the subpubic arch is narrow. In these cases a mediolateral episiotomy starting at the mid-point of the fourchette or posterior commissure and inclined to the mid-line only by about 15°—20° and directed towards the ischial tuberosity must be done, and fairly liberally, lest it may extend into the rectum during the delivery of the head or shoulders.

Soon after the birth of the head, the finger should be passed round the neck to see if the cord is round it and if so it must be cut between two artery clamps and the child immediately removed. If there is delay in the delivery of the body, it may be hastened by traction on the head or pressure upon the abdomen, but never by hooking the fingers in the axilla because the nerves of the arm may be injured causing paralysis, transient or permanent.

Soon after the birth of the baby, it must cry. If it does not, the mouth must be cleared of any mucus, if necessary by a rubber catheter. The eyes must be wiped with a pledget of cotton soaked in boracic lotion and 1% freshly prepared silver nitrate or penicillin ointment (100,000 units per gram) applied. Then the child should be placed on the bed on its side in between the mother's legs and when the cord ceases to pulsate, a ligature placed 3" from the vulva and another 2" from the umbilicus and the cord cut about $\frac{1}{2}$ " from the umbilical ligature. Then, wrapped in a towel, the child must be shown or even handed to the mother. Her joy will know no bounds and she will become transfigured in appearance and behaviour. A sense of pride and achievement will fill her heart with the greatest happiness. The sight

and touch of the baby can cause an immediate strong uterine contraction and hasten the separation and expulsion of the placenta.

The proper management of the third stage of labour is perhaps the most important in a normal labour as mismanagement can cause various complications like postpartum haemorrhage, hour-glass spasm of the uterus with retention of placenta, inversion of the uterus, shock and collapse. The commonest mistake committed is the attempt to hasten the delivery of the placenta, particularly while attending to a prolonged labour. It is in these cases that more time has to be given for the separation of the placenta because of the uterine exhaustion. In every case it is essential to wait till the placenta gets separated and it is usually not possible to determine its complete detachment until it has passed into the lower uterine segment which will be shown by a lengthening of the extra vulval portion of the cord, the rising up of the fundus of the uterus and a soft bulging above the symphysis pubis. Then ascertain whether the uterus is firmly contracted and if so in a normal labour the patient may be asked to bear down and this may be enough to expel the placenta. Failing this, after ensuring that the uterus is firmly contracted if necessary after massaging the uterus, downward pressure must be exerted with the hand on the fundus and the placenta expressed. But the uterus must be well contracted and hard otherwise it may cause an inversion of uterus. In these cases, gentle traction on the cord with one hand and pressure on the well contracted uterus with the other hand will also help easy delivery of the placenta. It must be borne in mind that a distended bladder can impede the

separation of the placenta as well as the expulsion of a separated placenta. So even if the bladder is partly distended, it must be catheterised and the ease with which the placenta can be subsequently expressed will be surprising. Calkins recommends a method of early recognition of placental separation and its expulsion. Here soon after delivery of the child, the hand is placed on the abdomen and the uterus held very gently with the fingers behind and the thumb in front and as soon as the uterus changes from the flattened discoidal shape to the globular shape which is the earliest sign of placental separation and slight vaginal bleeding is seen, it is vigorously massaged till it becomes firmly contracted and then by squeezing and gentle downward pressure, the placenta is expressed. By this early expression, the third stage will be much shortened and the blood loss much lessened. Women who lose very little blood recuperate faster, are less prone to infection and better able to nurse their babies.

If in spite of normal uterine contraction and retraction, the placenta does not get separated, a gentle attempt may be made at Crede's expression. In this, the uterus is held with the fingers behind and thumb in front and when it becomes well contracted, it is firmly compressed which may cause a separation of the placenta which can be then expressed with gentle pressure downwards, but in this, "only one attempt, not too much compression, and not too much forcing the fundus down". It may fail due to tense abdominal muscles when a proper grip of the uterus is not possible. In this case, it has to be done under anaesthesia. Failing this, the placenta has to be manually removed at once. But where facilities are not available for this,

ergometrine or methergin 0.25 mgm. I. V. to be given and one minute after this when the uterus becomes firm and hard, Crede's expression will often succeed in expressing the placenta.

In domiciliary practice, where no facilities are available for manual removal of placenta, I. V. ergometrine or methergin 0.25 mgm. will be very useful to control the bleeding associated with a retained placenta. It arrests the immediate threat to life and gives sufficient time for transporting the patient safely to a neighbouring institution where the placenta can be manually removed. The best time to give I. V. ergometrine is just when the anterior shoulder appears under the pubic arch. Within a minute the uterus contracts and expels the placenta. Here the partly born foetus keeps the lower pole of the uterus open, thus preventing retention of placenta. It is advisable to do this in all cases where postpartum haemorrhage is anticipated. Retention of membranes is usually due to hurry in the delivery of the placenta. The placenta and membranes must be carefully examined to see if they are complete and also whether there is any succenturiate placenta left behind in the uterus, which will be shown by a punched out hole in the membranes with a leash of blood vessels running to it. Then the perineum, the vestibule and the posterior vaginal wall must be examined for any tear, and if any tear is found, it must be immediately sutured. It is advisable to remain at least for one hour with the patient after the delivery of the placenta. During this time make sure that there is no internal bleeding and that the uterus is well contracted and hard, if not 0.5 mg. of ergometrine or methergin I. M. must be

given. See also that the baby's cord is not bleeding and whether there are any congenital defects in the child such as imperforate anus, cleft palate, etc. Finally ensure that the mother's pulse and B. P. have come to normal before leaving the patient.

It is most important to make every attempt to prevent exhaustion and shock to a woman in labour. It is not often well understood that even in a normal labour, women who are ill-nourished, anaemic, and tired and who had sleepless nights before, often show signs of exhaustion and shock and sometimes collapse even after an easy outlet forceps delivery. The necessity and importance of admitting these cases in a maternity institution a few days before delivery and giving them absolute rest and improving their general condition, particularly the anaemia, cannot be over-emphasised. Fluid nourishing diet like milk, fruit juice, soup, etc., and in nervous women sedatives in addition and in very anaemic cases blood transfusion must be given. The improvement they have by this treatment and its effect upon labour will be surprising.

In labour if the patient is having teasing pains, pethidine hydrochloride 100 mg. I. M. has been found very useful. It gives her rest and sleep, relieves any spasm of the cervix and she wakes up later refreshed and with good uterine contractions. Fluid nourishing drinks should be given during labour at intervals. If the patient has vomiting or is dehydrated or if labour is prolonged, 5% glucose saline should be given I. V. Solid food should be avoided because of the danger of inhalation of vomited material, if anaesthesia has to be given later for any operative interference.

If sufficient care has been taken to prevent infection and trauma to the maternal soft parts and much blood loss, a satisfactory puerperium can be ensured. If the emotional aspect of labour has been constantly kept in mind throughout labour and all mental trauma to the patient avoided, she is likely to leave the wards with the words "I will be soon back", otherwise the words will often be 'never again' and it may have an adverse effect indirectly on the child and may even cause a disruption of family life. It must be borne in mind that the obstetrician of to-day is no longer the midwife of yesterday, concerned with the mere delivery of the child. In his hands rests the foundation of society, which in turn will depend upon his ability to promote untarnished the genius of mother love.

HOW TO KEEP YOUNG MENTALLY.

The education of the mind is, after all, not a mere question of remembering facts which someone else gives us. The mind should conduct its own education to a better extent. And it cannot do this unless it thinks for itself. A mind that does not reason is comparatively useless.

I have given the subject of selfeducation a great deal of thought and have evolved what you might call a "Rule of Three" in regard to it. The rule is simply this: "Observe! Remember! Compare!"

The very first essential of any real education is to observe concrete facts. Unless you do this, you have no material out of which to manufacture knowledge. Remember what you have observed; and you will find yourself thinking out conclusions. These conclusions are real knowledge; and they are your own.

I believe that selfeducation is a lifelong affair. It comes, naturally and inevitably, through using the mind and following this Rule of Three.

— Alexander Graham Bell, scientist and inventor.

THROW YOUR CIGARETTE

PROFESSOR S. BEKKER, U. S. S. R.

The harm incurred by smoking is well-known. Smoking is harmful to all people, men and women, young, old, sick and healthy. But in some conditions smoking is not only harmful, but dangerous and must be immediately abandoned, without hesitation and delay. One of these conditions is pregnancy.

It has been proved by experiments on animals that nicotine causes strong contractions of the uterine muscles which may result in miscarriages. The fact is confirmed by obstetric practice: physicians have described cases when the miscarriages among smoking women could not possibly be explained otherwise than by the influence of nicotine. Cases of premature exfoliation of the placenta and intrauterine death of the child have been known to occur when the pregnant woman's organism was poisoned with nicotine.

It may be said that these serious consequences of the smoking habit are infrequent. That is so. But is it permissible to risk the future child's life, even if the proportion of risk is not big?

And there are other dangers as well. For instance, it has been proved by observations that if a pregnant woman smokes, the nicotine penetrates through the placenta into the cardiovascular system of the fetus and disturbs its normal heart functions. Besides, in nursing mothers smoking represses the milk forming capacity of the lactic glands and that is a serious threat to the child's health.

So that, while tabacco is harmful to every organism, it is doubly harmful to the woman's organism.

Smoking can have a bad effect on conception, as well as on the progress and issue of pregnancy. It was established long ago that it diminishes man's sexual capacity.

Women most often justify the smoking habit by the fear of getting stout. Don't they realise that the price of their slim figure is their own and their child's health? There are other, more reasonable and also more effective means of combating corpulence.

And so: throw your cigarette immediately!

SURGERY OF SENILE CATARACT IN CANADA

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No two surgeons approach a cataract operation in the same manner and then no one method suits all cases. The fundamental principles that underline all cataract surgery have not changed for several decades, but numerous new techniques and improved variations, however, have been introduced in every step of operative procedures. Canada essentially belongs to the American school of thought and Canadian ophthalmologists - atleast the majority of them like to identify themselves with their counterparts in the United States.

This paper deals with the procedure that is being adopted commonly among the ophthalmic surgeons in Canada with variation as far as possible, to some extent, in every step. This is based on my personal observation of various surgeons at work and in several seminars and clinical meetings I had the good fortune to attend during my one year of residency in ophthalmology from 1960 to 1961 at Toronto, Canada.

Unlike in the U. K., the continent or India, practice of ophthalmology functions as a unit of a general hospital, as also any other speciality. This carries a tremendous advantage in securing the services of the men belonging to other branches of medicine whenever necessary, with no inconvenience to the patient and more so when it is needed urgently. Thus a diabetic or a hypertensive or a patient with blood dyscrasias is admitted sufficiently early, treated and taken care of both preoperatively and postoperatively, until he is discharged from the ophthalmologist.

Not only this goes a long way in making modern cataract surgery safe, but also helps a surgeon, when he is poised above a patient, to proceed with very little apprehension.

The high average of successful results is mainly due to the fact that fewer cataracts are done and hence more time can be devoted to each patient not only pre and post-operatively, but also during the operation. It is not surprising, therefore, to see when the world of the time is at their hand, deep thought is given and meticulous care is exercised in all the processes of operation.

Intra-capsular extraction is the rule and it is due to several factors. Visual standards set up in various occupations in trade, driving and other manual occupations and the modern amenities in a welfare state like Canada compel a person to seek an ophthalmologist at the earliest sign of deterioration of vision. The early necessity to remove the immature cataract, the advantage of quick results and smooth convalescence have made extra-capsular extraction out of place, thus, depriving many ophthalmologists of the opportunity to watch one being done. To substantiate this statement, I may mention one incident. When at a seminar on cataract surgery presided by no less a person than Dr. Benjamin Roycraft of England, a paper was read on "Extracapsular Extraction" by a Canadian ophthalmologist who had just recently returned from England and all the delegates not only requested Dr. Roycraft to elaborate on it, but also requested

the speaker to distribute a copy of the paper to everybody and made him rerun the movie he had personally taken. Combined is preferred over simple extraction. I observed most of the surgeons prefer a complete but narrow coloboma.

Pre-operative treatment: Every day improvements in surgical techniques have decreased the limitations of a cataract operation. Good results in cases which were once not operated upon depend exclusively on the meticulous care with which each individual case is studied before the operation and on the measures taken to assure the best possible conditions of success.

General physical examination in reference to blood pressure, pulmonary diseases, focal sepsis or general infection, mental state, and investigation for diabetes or albuminuria, blood dyscrasias, etc. are done. Culture of conjunctival sac is not done in every case, but when it is done, it is mainly to know what type of antibiotics they have to use post-operatively. Antiseptic treatment is carried out in all cases for 4 to 7 days preoperatively.

After admission into the hospital: Admission of the patient 24 hours before operation is customary, but a few surgeons admit 48 hours before operation. This helps the patient to orientate himself with the new surroundings. In most of the Canadian hospitals there is no eye ward as such and ophthalmic cases are mingled with the other surgical cases. Every nurse is trained in ophthalmic nursing as well and each nursing station contains a manual of pre and post-operative care of eye cases including diet. The patient has his shave and bath on this day. The

nurse jots down the personal habits of the patient and his allergies. Every case without exception gets an enema and sedatives before retiring to bed.

On the day of operation, most of the patients have light breakfast. Usually, heavy sedation is resorted to by many surgeons before operation. Drugs commonly used are the barbiturates, demoral, morphia, pethidine and largaetil. The sedation is so heavy that it is a common sight to see the patients snore vociferously during the operation. The majority of surgeons prefer a well dilated pupil and this is obtained by neosynephrine hydrochloride 10% instilled 15 minutes before the operation. Some surgeons use homotropine. The patient is wheeled into the theatre in his own cot and then transferred to the operation table. Very few hospitals in Canada have their own ophthalmic surgical theatres. In the rest of the hospitals ophthalmic surgery is done usually in one of the general surgical theatres, reserved for that specified period on that day.

Operation theatre: The surgeon's wash room is outside the theatre and a push door separates the sink from the operation room. There is good day light from one large window comprising almost the whole of one wall and a curtain helps to regulate the light. Walls are usually painted in light shades, mostly green. The operation table can be adjusted to any desirable height by a few manouvers with the surgeon's foot. The sterilization room is also outside the theatre. Ultraviolet lamps are fitted to sterilize the atmosphere and almost all theatres are airconditioned. Usually, there are two trained nurses and one student nurse assisting the surgeons. One is in charge of

sterilization, one assists the surgeon and the third is to run on small errands and to assist the patient. The drapes and towels covering the face, head and chest are invariably green or grey in colour to give contrast, so also the colour of the surgeon's and nurses' gowns, masks and caps.

Preparation of the surgeon: It is an exacting, and probably unnecessarily time consuming affair for an ophthalmic surgeon to undergo such a thorough preparation which essentially belongs to general surgery. In his room he removes everything except his underwear and gets into an outfit that cannot be differentiated from the one that is worn by a mechanic in a workshop. In the washing room that adjoins the theatre he puts on the cap, mask and shoe cover and he washes his hands with soap and brush for 20 minutes by the clock which is set to go into alarm before the commencement of the washing. The nurse helps him into the gown which has sleeves extending to the wrist. Most of them use rubber gloves.

Sterilization: Dry heat in an electric oven is most commonly used for the sterilization of all metal instruments. Autoclaving is employed as in general surgery for cotton, gauze, drape, etc.

Anaesthesia: Instillation of local anaesthetics, cocaine or pantocaine starts half an hour before the operation. Facial block is prevalent, but some surgeons combine this with a block of the branches also. After retro-bulbar injection, the eye is massaged for 5 to 7 minutes and this helps in lowering of I. O. pressure considerably. Quite a number of cases are done under general anaesthesia which consists of initial induction with intravenous pentathol

sodium and maintained by gas and oxygen. General anaesthesia is given by a senior anaesthetist. Ophthalmic anaesthesia is a subject in anaesthesia course in Canada. When a case is expected to be done under general anaesthesia, the patient is visited by the concerned anaesthetist a day before, and on the subsequent 3 days the patient is under his control.

Immediate preoperative measures: When the patient is on the operating table, the assistant washes the eyelids and the surrounding area with cetavalon or spirit. Eyelashes are trimmed, but eye brows are not shaved. The patient's hair and the forehead are enclosed in sterile towels. From the neck down-wards, the patient is draped with sterile sheets. Lids and eye brows are painted with mastisol and covered with gauze. Face is covered with sterile face mask with an aperture which comes opposite the palpebral fissure.

Now the speculum is inserted. Although I came across dozens of different types of the speculum, most of them are modifications of Arruga's speculum which is so constructed that the weight is taken on the bridge of the nose and the temple and the lids are lifted off the globe. Most surgeons take their place at the head of the patient during the entire operation, but they move to the left to make section for the left eye. Many surgeons prefer to operate sitting on a stool.

Corneal section and sutures: Herein, I was a witness to a number of variations from surgeon to surgeon. Puncture and counter puncture method of corneal section in the maximum horizontal diameter is viewed by the Canadian ophthalmic surgeons as "asking for trouble". When it is accomplished, it is a

masterpiece of work! Common methods adopted are small corneal sections without a conjunctival flap, extended either side with corneal scissors, or keratome incisions and again extended with scissors or preplaced sutures and the section passing in between the sutures. Where flap is used, it is first dissected out all round the incision, as is done in trephining, usually three preplaced sutures are applied, but some use five or even seven sutures. Corneo-scleral suture using 00000 silk threaded atraumatically is commonly used. Some surgeons use only fine catgut sutures.

Iridectomy: Complete iridectomy is the one most frequently performed. Iridotomy is unheard of, and peripheral iridectomy when done is usually double.

Extraction of cataract: As mentioned earlier, extraction is always intracapsular and never extracapsular. Extraction with erisophake is more popular than with the capsule forceps. Zonulysin is occasionally used. Tumbling is preferred over the sliding method. Delivery of the lens begins only after the surgeon has made sure that the zonular fibres have ruptured. Never before such great stress is emphasised and time and patience are the essence of this procedure which usually takes 3 to 5 minutes by the clock to deliver the lens. In the hands of some surgeons, it is a treat to watch.

Completion of the operation: Sutures are tied and, if necessary, extra sutures are applied. Iris is stroked back into position and $\frac{1}{2}$ c. c. of air is injected into the anterior chamber by means of a special canula. This helps to reform the A. C. immediately and to keep the iris and vitreous pushed backwards thus lessening

the chance of iris prolapse. A few surgeons make it a routine to bring a conjunctival hood over the wound.

Most of the surgeons use a miotic, eserine $\frac{1}{2}\%$, to contract the pupil during the first 24 hours and keep the iris away from the section. Some of them, however, use neither a mydriatic nor a miotic. An antibiotic is inserted as a prophylactic. Both eyes are bandaged, but an aluminium shield is placed over the operated eye and strapped. The patient is transferred to his own cot which is wheeled to his ward.

Post-operative nursing: The patient is kept propped with one pillow to the head with instructions to lie flat. Some surgeons prefer to keep the patient in a semi-recumbent position. If there is the least sign of the patient becoming restless, the patient's wrists are loosely tied to the side of the bed at night to avoid the possibilities of the patient rubbing the eye. This post-operative restlessness is usually accounted for by the heavy pre-operative sedation especially with barbiturates.

Invariably, all cases are dressed 24 hours after the operation, but some prefer to dress only after 48 hours. For the first 12 hours postoperatively the patient is starved, but allowed to quench the thirst. For the next 24 hours, the patient is allowed liquid diet. Thereafter until the 5th day, the patient takes only simple solid food which requires no effort to masticate.

At the first dressing atropine and an antibiotic ointment are inserted. The eye is dressed every 48 hours unless there is an indication to examine after 24 hours. The unoperated eye is left uncovered after 48 hours or at the second dressing. Both eyes are

uncovered not earlier than the 7th day and are given dark glasses. The patient is allowed to sit up from the 5th day onwards and to walk to the toilet room with the assistance of his nurse. The sutures are removed on the 10th day, but some surgeons prefer to leave them until they fall off by themselves. Catgut sutures seem to disappear within 3 weeks, but as long as they remain, they continue to irritate the eye.

The patient is discharged on the 14th day usually with a prescription for an antibiotic and cortisone ointment or drops and instructed to report to the surgeon once in 3 or 4 days.

Correction of aphakia: Glasses are given after 6 weeks. The surgeons make

it a point to prescribe spectacles only after 3 consecutive retinoscopic findings are similar.

Insertion of Ridley's acrylic lenses is not done although it raised tremendous interest a few years ago in the States and in Canada. If only one eye is aphakic and the other has good vision, a contact lens is fitted whenever possible.

Complications during and after the operation and the end results are not mentioned here, as they will have to be dealt with separately. My only object in presenting this paper is because it will be of interest to us in India who do a lot of cataract surgery, to know what our counter parts do in a sister commonwealth country.

O SWEET, O SWEET CONTENT

Let me advise you not to aim too high, The prizes in our profession are only for the few, and they do not always bring much happiness when gained. "Seekest thou great things? Seek them not," as the wise man said. If you have earned enough for your needs and been able to put a little aside for your old age, and if, at the same time, you have won the esteem of your colleagues and the affection of your patients, you have done well enough, and that measure of success should be within the reach of most of you.

— *Sir Robert Hutchison.*

ASSOCIATION NOTES

BRANCH NOTES

Madurai Branch:

1. A monthly meeting of the Madurai Medical Association was held on Saturday, the 22nd December, 1962 under the presidentship of Dr. K. Ramachandran, M. S., Madurai. Dr. D. Bhupathi, M. D., Medical Registrar, Erskine Hospital and Assistant Professor of Medicine, Madurai Medical College, Madurai, gave an interesting lecture on 'Leukemias and Chemo-therapy'.

2. A monthly meeting of the Madurai Medical Association was held on Saturday, the 12th January 1963 under the presidentship of Dr. K. Ramachandran, M. S., Madurai. Dr. K. A. Srinivasan, B. Sc., M. S., Madurai gave an interesting lecture on 'Observations of a Urology Clinic in Moscow'.

Pudukottai Branch:

A monthly meeting of the association was held on 16th December, 1962 at 5 P. M. in the premises of the Town General Hospital, Pudukkottai, Dr. C. R. Thiruvengadam, the president presiding.

Dr. U. Sridhara Rau, B. Sc., M. B., B. S., F. V. A. M., (Dermat), D. D. V. (Vienna) gave an extensively interesting address on 'Modern Trends in Dermatology with Special Reference to Therapy'.

Ramanathapuram Branch:

An ordinary meeting of the Ramnad District Branch of I. M. A. was held on Sunday, the 27th January, 1963 at 5 P. M. at the G. S. Hindu High School premises, Srivilliputtur. Dr. S. Raju Ayyar presided over the function. Dr. M. D. Ananthachari M. P., consulting physician, the Christian Mission Hospital, Madurai delivered a lecture on 'Coronary Attacks'.

OBITUARY

We regret to report the unfortunate demise of Dr. K. V. Subramaniam, L. M. & S., B. S. Sc., Coimbatore, a member of the Coimbatore Branch of the I. M. A.

Birth: 25—8—1902.

Died: 17—1—1963.

ABSTRACTS AND EXCERPTS

THE TUBERCULOSIS SITUATION IN INDIA TODAY:

Tuberculosis is still highly prevalent in India, and a profit and loss account for the Madanapalle area is presented on the basis of a prevalence of 50 bacillary cases per 10,000:—

“Without extensive use of modern drug therapy the tuberculosis mortality is estimated to be about 80 per 100,000 (i. e. 8 per 10,000). The percentage of cures of bacillary cases a year may be about 10%; hence the following profit and loss account can be set up; opening balance 50 bacillary cases (per 10,000), new ones developing during the year 13, deaths 8, sputum converted 5, and a closing balance of 50 at the end of the year. In other words, there seems to be a neat balance—the number of new cases arising correspond to the number leaving the community either by death or by cure. While the number of patients may be the same, the individuals go on changing.”

The chief importance of the paper lies in the serious warning of the danger of drug resistance. In some clinics the proportion of patients who have received drug treatment before coming to the clinic is as low as 10-15%, but in others it is as high as 90-95%, and the proportion of patients with bacilli resistant to one or more of the standard drugs is high (33-50%) in those who have previously been treated. The drugs are available even in rural areas, and are often misused. Even in patients who have not previously received chemotherapy the proportion of resistance may be as high as 6% for streptomycin and 6% for isoniazid—and this may only be the beginning. “How many shall we find in ten to twenty years when those infected today develop their tuberculous disease?”

—Frimodt-Møller, *Tubercle*. 1962, v. 43. 88-94.

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TUBERCULOSIS:

At the 37th meeting of the Academy of Internal Medicine held at Kyoto, April 9-11, 1962, the evermounting increase of drug resistant tuberculosis was emphasized as a disquieting development. Dr. Katayama, taking 684 patients at random, showed the following figures: in 1955 he had only 91 (13%) patients refractory to treatments; in 1958 there were 175 (25%); and in 1961 the figure reached 383 (55%).

Another point brought up was a rise of a new acid-fast organism differing morphologically, culturally, and biologically from Koch's bacillus. Tested by every known method, it was found to belong to neither a human, nor bovine, nor yet avian type of bacillus. The laboratory animals remained areactive following inoculation, developing clinical symptoms typical of tuberculosis only after having been sensitized with a known tubercle bacillus.

—*Journal of American Medical Association*, October 13, 1962, page 209.

PRIMARY DRUG RESISTANCE OF *M. TUBERCULOSIS* IN UGANDA:

Evidence has been produced of the rising incidence of primary drug resistance of *M. tuberculosis* in E. Africa. The investigation here described further confirms the high level of resistance to isoniazid now found in Uganda, and gives some additional information. A total of 242 strains of tubercle bacilli, isolated from previously untreated African patients in Uganda, were investigated for drug resistance. Of these 8.7% were found to be resistant to isoniazid, 2.1% to streptomycin, and 1.1% to PAS. Resistance to streptomycin is here reported for the first time.

— Short, G. M. *Tubercle* 42, 535—536 (1961).

* * * *

ACTIVE PULMONARY TUBERCULOSIS IN ELDERLY DIABETICS:

From 1953 to 1960, active pulmonary tuberculosis was diagnosed for the first time in 170 diabetics, 153 of whom were in the 7th and 17 in the 8th decade of life. The average period between the diagnosis of diabetes and the diagnosis of tuberculosis was 9 years. The average length of the antituberculosis treatment was 1 year; the length of the follow-up period was 2½ years; and 3½ years after tuberculosis was first diagnosed, 62 patients (36.5%) had died. In over 50% the cause of death was angiosclerosis; tuberculosis caused the death of only 20%.

— Pfaffenberg, R. (from German) *Tuberkulosearzt* 15, 813—821 (1961).

* * * *

MILIARY TUBERCULOSIS—A FORGOTTEN DIAGNOSIS:

The difficulties of the diagnosis of miliary tuberculosis are discussed, based on 4 cases of "fever of unknown origin" which were diagnosed as miliary tuberculosis only at autopsy. In these cases, the chest x-rays were normal; and in 2 of them, another chronic disorder masked the symptoms of tuberculosis.

— Bottiger, L. E. & others, *Nord. Med* (from Swedish) 66, 1719—1721 (1961).

* * * *

TYPHOID CARRIER—THE CASE OF GRANDMA C.

In the summer of 1961 two cases of typhoid fever occurred in separate areas of Saskatchewan, Canada. Certain aspects in the management of one case induced the medical health officer to take a closer look and he uncovered a connection. Both patients had eaten several weeks before onset of their illness in the home of Mrs. C., a kind elderly woman of 73, keeping house for one of her sons on the family farm. A visit with Mrs. C. established that she had suffered typhoid in fall 1937, along with four of her sons, and apparently had contracted it from a typhoid convalescent who had cooked in her house during the harvest, 1937. Mrs. C. had subsequently been established as a carrier and periodic checks since 1952 always had confirmed this. Typhoid had occurred frequently in her large

family : in 1937 two further sons fell ill, in 1947 a grandson, in 1950 her own husband, in 1952 a nephew, in 1955 a niece and finally in 1961 the above-mentioned two persons who were hired temporary helpers in her house. All this was not revealed during the first visit to her home, but it was diligently pieced together by the health officer from his review of the case record of typhoid fever at the Department of Public Health, Regina which dated back to 1905, and of the hospital records which contained enough data to establish the family connections between the cases.

It was learned that the original carrier, the hired cook in 1937, had contracted typhoid in April of that year, while working as a waitress at Prince Albert and had also passed on the infection to one of her daughters, who in turn, in 1950, seemed to have infected her partner in room and work.

Bowmer's doctrine ("Where there is typhoid, there is a carrier") was confirmed and the conscientious handling of a dangerous communicable disease was rewarded with the discovery of a chain of infections over 24 years and with the realization how important the follow up of typhoid is. The personal control of communicable diseases by qualified and conscientious health officials still is one of the mainstays of modern public health.

— Skoll, S. L. & others, *Candian Jour. Public Health* 53, 333, 1962.

* * * *

OUTBREAK OF TYPHOID FEVER IN PREVIOUSLY IMMUNIZED PERSONS TRACED TO A COMMON CARRIER:

An outbreak of typhoid fever occurred in an American youth activities camp in West Germany, and among approximately 408 persons, who ate a contaminated potato salad, 62 cases of typhoid fever developed. Twenty of these patients were admitted to a United States army hospital located in the Rhein/Pfalz area of West Germany. The source of the disease was a civilian cook who prepared the potato salad, a typhoid carrier since 1945 but inadequately supervised and controlled. All patients responded to chloramphenicol therapy except 1, who had two relapses. All patients, except a two-and-a-half-year-old adopted orphan, had previously been immunized with typhoid vaccine; the unimmunized patient reacted no more severely to the disease than those in the immunized group. Of 52 members of the armed forces who ate the noon meal only 2 contracted the disease as proved by positive blood or stool cultures and a rise in the Widal titers.

The value of typhoid vaccine is subject to debate since it did not confer complete protection against the disease. There was a rise in "O" and "H" titers, but a similar rise in titers of "A" and "B" antibody was noted. The rise in "O" titer was of greater significance than the rise of that of other antibodies. In several cases, however, no significant rise in antibody titer occurred.

— Col. W. M. Edwards, M. C., U. S. A. Col. R. I. Crone & Col. J. F. Harris
"The New England Journal of Medicine" October 11, 1962, Page 751..

EPIDEMIOLOGY OF TYPHOID FEVER (Russian):

An epidemic of typhoid fever in one village is analysed. As a result of the epidemiological and microbiological analysis it could be shown that the disease was caused by meat jelly which was consumed at a wedding celebration. Eighteen out of the 65 participants fell ill simultaneously, and altogether there were 25 cases of the disease. The source of the disease was a typhoid fever patient who had taken part in preparing the jelly. Hospitalization of the patients, phage treatment of the inhabitants of the village, vaccination of the inhabitants aged 12 years and more, and overhaul of the wells led to a cessation of the epidemic.

— *Excerpta Medica*, Vol. 15 Page 727 & 728 (1962).

THE 17th MADRAS STATE MEDICAL CONFERENCE

The 17th Madras State Medical Conference which was announced to be held in January 1963 has, due to some unavoidable reasons, been postponed in accordance with the wishes of the host branch—the South Arcot Branch of I. M. A. This conference will be held during the last week of April 1963 at Annamalainagar under the auspices of the South Arcot Branch of I. M. A. Programme and dates of the conference will be announced later.

63, Swami Naicken Street,
Chintadripet,
Madras-2.

A. PATTABI,
*Honorary State Secretary,
Madras State Branch, I. M. A.*

NATIONAL DEFENCE FUND — DONATIONS THROUGH THE STATE BRANCH

The honorary state secretary, Madras State Branch of I. M. A. gratefully acknowledges receipt of the following donations to the National Defence Fund received through the honorary secretary of the Pudukottai branch, I. M. A.

		Rs.	nP.
1.	Dr. C. R. Thiruvengadam, Pudukottai	...	20 00
2.	„ V. K. Ramachandran, Pudukottai	...	20 00
3.	„ N. Thiagarajan, Pudukottai	...	20 00
Total Rs.		...	60 00

DOCTOR C. S. THAKAR ORATION AWARD — 1963.

It is notified for general information of the members of the local branches of I. M. A. under the jurisdiction of the Madras State Branch of I. M. A. that an annual award — “Dr. C. S. Thakar Oration Award” — would be offered to a member of the State Branch in the jurisdiction of which the annual conference is due to be held. Since the next All India Medical Conference will take place in Madras, one member from this state branch is eligible to receive this award.

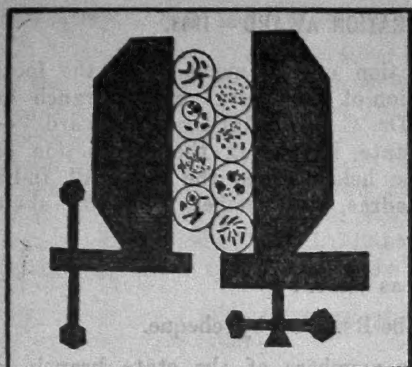
The conditions of the award are as under:—

1. The value of the award will be Rs. 250/- by cheque.
2. The award would be open to members of the state branch in which the conference session is held.
3. The subject for the award which would be given at Madras may be one of the following :—
 - (a) Problems of Social Security of our Country;
 - (b) Application of Physiology to Medical Science;
 - (c) Role of the General Practitioner in the Community.
4. The selection of the person for delivering the oration would be decided by the journal committee after obtaining the recommendations and credentials from the state branch.
5. A certificate of award would be presented along with the cheque.
6. The prize and the certificate would be awarded at the inauguration of the scientific session of the annual conference by the person inaugurating the session.
7. An insertion to this effect shall appear in the journal of the association at suitable place with sufficient notice.
8. The oration delivered will be the property of the association and will be published in its journal.

Intending competitors for the award, who may be members of the I. M. A. through any local branch in Madras State, are requested to intimate their names, qualifications and present address and the subject on which they would deliver the oration to the undersigned. The last date for receipt of applications will be 1st July, 1963.

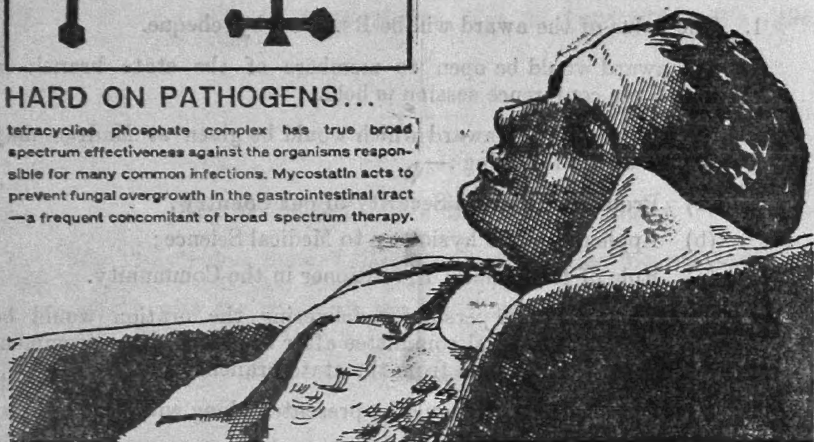
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Dr. A. PATTABI,
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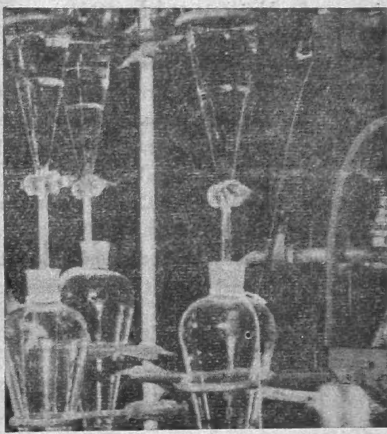
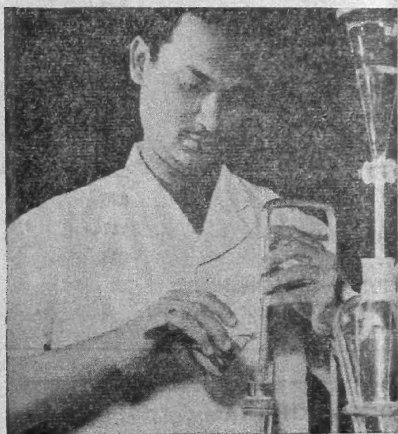
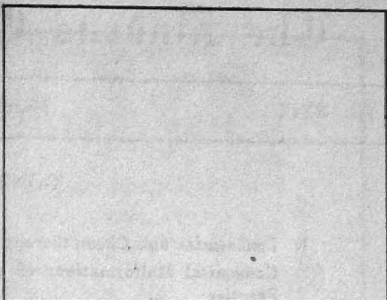
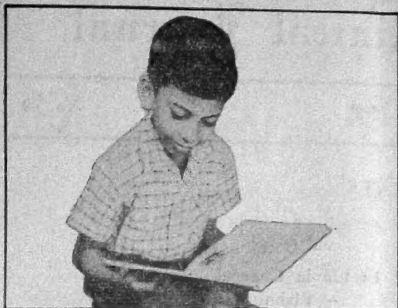
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